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Edward Urban

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Patent
Attorney's Docket No. 027556-431

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue of

U.S. Patent No. 5,327,577 to

Jan-Erik UDDENFELDT et al.

Application No.: 08/938,832

Filed: September 26, 1997

For: HANDOVER METHOD FOR
MOBILE RADIO SYSTEM

Received

JUN 16 1998

Group 2700

) VIA HANDCARRY

) Group Art Unit: 2746

) Examiner: E. Urban

75-304-98
11-24-98

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. §1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is being submitted in a co-pending Application No. 08/838,840 (Reissue of U.S. Patent No. 5,109,528).

The documents are being submitted within 3 months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later, therefore no fee or certification is required under 37 C.F.R. § 1.97(b).

U. S. Patents

<u>Patent No.</u>	<u>Date</u>	<u>Patentee</u>
2,745,953	5/56	Young
3,819,872	6/74	Hamrick
4,057,758	11/77	Hattori
4,097,804	6/78	Yamaguchi et al.

<u>Patent No.</u>	<u>Date</u>	<u>Patentee</u>
4,112,257	9/78	Frost
4,152,647	5/79	Gladden et al.
4,211,894	7/80	Watanabe et al.
4,222,115	9/80	Cooper et al.
4,255,814	3/81	Osborn
4,308,429	12/81	Kai et al.
4,383,332	5/83	Glance et al.
4,398,063	8/83	Hass et al.
4,475,246	10/84	Batlivala et al.
4,490,830	12/84	Kai et al.
4,516,269	5/85	Krinock
4,596,042	6/86	Stangl
4,633,519	12/86	Gotoh et al.
4,642,633	2/87	Dunkerton et al.
4,644,560	2/87	Torre et al.
4,667,202	5/87	Kamerlander et al.
4,670,899	6/87	Brody et al.
4,675,863	6/87	Paneth et al.
4,696,051	9/87	Breeden
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4,697,260	9/87	Grael et al.
4,698,839	10/87	DeVaney et al.
4,715,048	12/87	Masamura
4,718,081	1/88	Brenig
4,718,109	1/88	Breeden et al.
4,723,266	2/88	Perry
4,737,978	4/88	Burke et al.
4,759,051	7/88	Han
4,765,753	8/88	Schmidt
4,771,448	9/88	Koohgoli
4,811,380	3/89	Spear
4,850,032	7/89	Freeburg
4,852,090	7/89	Borth
4,856,048	8/89	Yamamoto et al.
4,901,307	2/90	Gilhousen et al.
4,930,140	5/90	Cripps et al.
4,955,082	9/90	Hattori et al.
4,984,247	1/91	Kaufmann et al.
5,022,049	6/91	Abrahamson et al.
5,048,059	9/91	Dent
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Information Disclosure Statement

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Page 3

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Foreign Patent Documents

<u>Document No.</u>	<u>Date</u>	<u>Country</u>
0045882	1/70	Japan
¹ 2022425	11/71	Germany
3012141	10/81	Germany
¹ 0 040 731	12/81	EPO
57-73539	5/82	Japan
¹ 0 072 479	2/83	EPO
¹ 0 072 984	3/83	EPO
58-111443	7/83	Japan
58-159083	9/83	Japan
59-176935	10/84	Japan
59-212041	11/84	Japan
60-42950	3/85	Japan
60-52131	3/85	Japan

<u>Document No.</u>	<u>Date</u>	<u>Country</u>
61-171269	8/86	Japan
WO87/01897	3/87	WIPO/PCT
62-132444	6/87	Japan
0274857 A1	7/88	EPO
WO90/13187	11/90	WIPO/PCT
WO91/07020	5/91	WIPO/PCT

Other Documents

Bernhardt, R., *User Access in Portable Radio Systems in the Noise Limited Environment*, IEEE International Conference on Communications '87, pp. 1-8 (1987).

Bernhardt, R., *RF Performance of Macroscopic Diversity in Universal Digital Portable Radio Communications: Frequency Reuse Considerations*, IEEE International Conference on Communications, pp. 65-71 (1986)

Viterbi, A., *Very Low Rate Convolutional Codes for Maximum Theoretical Performance of Spread-Spectrum Multiple-Access Channels*, IEEE Journal on Selected Areas in Communications, Vol. 8, No. 4, pp. 641-649 (1990).

Kerdock, A., *A Class of Low-Rate Nonlinear Binary Codes*, Information and Control, Vol. 20, pp. 182-187 (1972).

MacWilliams, F., et al., *The Theory of Error-Correcting Codes*, Part I, pp. 93-124 (1977).

Macwilliams, F., et al., *The Theory of Error-Correcting Codes*, Part II, pp. 451-465 (1977).

Frenkiel, R., *A High-Capacity Mobile Radiotelephone System Model Using a Coordinated Small-Zone Approach*, IEEE Transaction on Vehicular Technology, Vol. VT-19, No. 2, pp. 173-177 (1970).

Shefer, J. et al., *An X-Band Vehicle-Location System*, IEEE Transaction on Vehicular Technology, Vol. VT-21, No. 4, pp. 117-120 (November, 1972).

Morinaga, T., et al., *Automatic Selection of Fixed Receiving Stations in Mobile Radio Systems*, Review of the Electrical Communication Laboratory, Vol. 16, Nos. 5-6, pp. 374-384 (May-June 1968).

Spilker, J. Jr., et al., *The Delay-Lock Discriminator-An Optimum Tracking Device*, Proc. Inst. Radio Engrs. 43, pp. 1403-1416 (1961).

Sergo, J., et al., *Analysis and Simulation of a PN Synchronization System*, IEEE Transactions Com-18, pp. 676-679 (1970).

Okumura, Y., et al., *Field Strength and its Variability in VHF and UHF Land-Mobile Radio Service*, Ref. Electr. Commun. Lab. (Japan) 15, pp. 825-873 (1968).

Figel, W., et al., *Vehicle Location by a Signal Attenuation Method*, IEEE Transactions VT-18, pp. 105-109 (1969).

Nakajima, A., *Advanced Mobile Communication Network Based on Signaling System No. 7*, International Switching Symposium (1987).

Turin, G., *Introduction to Spread-Spectrum Antimultipath Techniques and Their Application to Urban digital Radio*, Proceedings of the IEE, Vol. 68, No. 3 (1980).

Monsen, P., *Digital Transmisssion Performance on Fading Dispersive Diversity Channels*, IEEE Transactions on Communications, Vol. COM-21, No. 1 (1973).

Raith, K. et al., *Multi-Path Equalization For Digital Cellular Radio Operating at 300 KBIT/S*, Proceedings of the 36th IEEE Vehicular Technology Conference (1986).

Bennett, M. et al., *A Hand-Off Algorithm for Cellular Radio Based on Reed-Solomon Coding*, Dialog Abstract from IEEE Colloquium on 'Mobile Radio Networks' (1988).

Herold, W., *A Small-Zone Radio Telephone System with Code Division Multiple Access*, Proc. Internat. Zurich Seminar, F6 1-4 (1974).

Stjernall, J-E et al., *Radio Test Performance of a Narrowband TDMA System*, Ericsson Radio Systems AB, S-163 80 pp. 293-299 (1987).

²Herold, W., *Changing Radio Zones of Fixed Stations by Mobile Subscribers*, Communication form AEG-Telefunken Wireless Communications Research Institute, Ulm (Germany), pp. 173-179.

³Schenkel, K., *Entwurf Eines Integrierten Digitalen Nachrichtensystems mit Vielfachzugriff fur ein Beliebige Verzweigtes Breitbandnetz*, AEU 27, pp. 168-176 (1973).

To assist the Examiner, the documents are listed on the attached form PTO-1449.
It is respectfully requested that an Examiner initialled copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATTHEWS, L.L.P.

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Date: June 16, 1998

2025 RELEASE UNDER E.O. 14176

INFORMATION DISCLOSURE CITATION PTO-1449				ATTORNEY'S DRT NO. 027556-431		APPLICATION NO. 08/938,832	
				APPLICANT Jan-Eric UDDENFELDT et al.			
				FILING DATE September 26, 1997		GROUP 2745	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	2,745,953	5/56	Young				
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	4,057,758	11/77	Hattori				
	4,097,804	6/78	Yamaguchi et al.				
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	4,222,115	9/80	Cooper et al.				
	4,255,814	3/81	Osborn				
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
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	5,056,109	10/91	Gilhousen et al.				
	5,091,942	2/92	Dent				
	5,095,531	3/92	Ito				
	5,101,501	3/92	Gilhousen et al.				
	5,103,459	4/92	Gilhousen et al.				
	5,109,390	4/92	Gilhousen et al.				
	5,124,698	6/92	Mustonen				
	5,126,748	6/92	Ames et al.				
	5,128,959	7/92	Bruckert				
	5,179,571	1/93	Schilling				
	5,257,283	10/93	Gilhousen et al.				
	5,265,119	11/93	Gilhousen et al.				
	5,267,261	11/93	Blakeney, II et al.				
	5,267,262	11/93	Wheatley III				
	5,280,472	1/94	Gilhousen et al.				
	5,383,219	1/95	Wheatley, III et al.				
	5,437,055	7/95	Wheatley, III				
	5,452,473	9/95	Weiland et al.				
	5,461,639	10/95	Wheatley, III et al.				
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	5,509,035	4/96	Teidelmann, Jr. et al.				
	5,513,176	4/96	Dean et al.				
	5,519,761	5/96	Gilhousen				
	5,528,593	6/96	English et al.				
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	Bennett, M. et al., <i>A Hand-Off Algorithm for Cellular Radio Based on Reed-Solomon Coding</i> , Dialog Abstract from IEEE Colloquium on 'Mobile Radio Networks' (1988).						
	Herold, W., <i>A Small-Zone Radio Telephone System with Code Division Multiple Access</i> , Proc. Internat. Zurich Seminar, F6 1-4 (1974).						
	Stjernall, J-E et al., <i>Radio Test Performance of a Narrowband TDMA System</i> , Ericsson Radio Systems AB, S-163 80 pp. 293-299 (1987).						
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	Schenkel, K., <i>Entwurf Eines Integrierten Digitalen Nachrichtensystems mit Vielfachzugriff fur ein Beliebige Verzweigtes Breitbandnetz</i> , AEU 27, pp. 168-176 (1973).						
	Herold, W., <i>Fangverhalten einer Phasenregelschleife mit Sägezahn-Komparator</i> , AEU 25, pp. 226-230 (1971).						
	Herold, W., et al., <i>Aufbau und Eigenschaften von Quasiorthogonalen Codekollektiven</i> , AEU 27, pp. 463-470 (1973).						
	Herold, W., <i>Nachrichtentechnische Zeitschrift</i> , NTZ, 27, pp. 253-259 (1974).						
	Heynisch, B., <i>NTG Gleichkanalfunksysteme fur die Frequenzökonomische Versorgung Grosser Gebiete</i> , NTG-Fachbereich Sprech - und Datenfunk, AEG, Ulm, pp. 41-46 (1985).						
	Benndorf, V. et al., <i>Quasissynchroner Gleichwellenfunk-ein Gleichkanalfunk-Verfahren zur Erhöhung der Erreich-barkiet in Mobilfunknetzen</i> , Elektrizitätswirtschaft, Jg. 80, Heft 6, pp. 187-198. (1981)						
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